



# Digital Thermocouple Transmitter

## Type T-23

### Temperature Transmitters

#### Application

WIKAI T-23 digital temperature transmitter converts thermocouple inputs to a linearized 4-20 mA signal. The T-23 features full galvanic isolation and thermocouple break protection. The transmitter is designed to withstand vibration and shock found in harsh industrial environments. The compact size of the T-23 will fit in a DIN head assembly with form B mounting (see drawings.)

The T-23's input type and range are factory set per the customer specifications. This allows the user to select a specific range to match the application. The design provides higher accuracy than the standard "hockey puck" transmitter with an output linearized to temperature, galvanic isolation and no potentiometers to adjust.



T-23.10.000

### General Specifications

#### Inputs

Thermocouples: J, K, N, T, E, L, U, R, S, B, W3, W5

#### Accuracy

Thermocouple: (Per DIN IEC 770, 23°C ±5°C)  
±0.5°C or 0.05%FS or ± 10µv

#### Thermocouple Break Protection

Upscale (21 mA) or Downscale (3.6 mA)

#### Cold Junction Compensation

Internal, Accuracy ±1.0°C

#### Measurement Update Time

2/second

#### Maximum Lead Wire Resistance

Thermocouple: 250 Ohm

#### Output

4-20 mA

#### Maximum Output Load

$R_{MAX} \leq (V_s - 9v) / 0.021 A$

#### Load Effect

< 0.01% of span/100 Ohm

#### Power Supply

9 to 36 Vdc

#### Power Supply Effect

< 0.005% of span/V

#### Isolation

1500 Vac, 60 s

#### Environmental

Operating Temperature: -40 to 185°F (-40 to 85°C)

Humidity: 100%

Vibration: 10 Hz to 2 KHz, 5 g per DIN IEC 68 2-6

Warm-up time: 5 minutes

#### Construction

Case Material: Plastic

Dimensions: refer to drawings

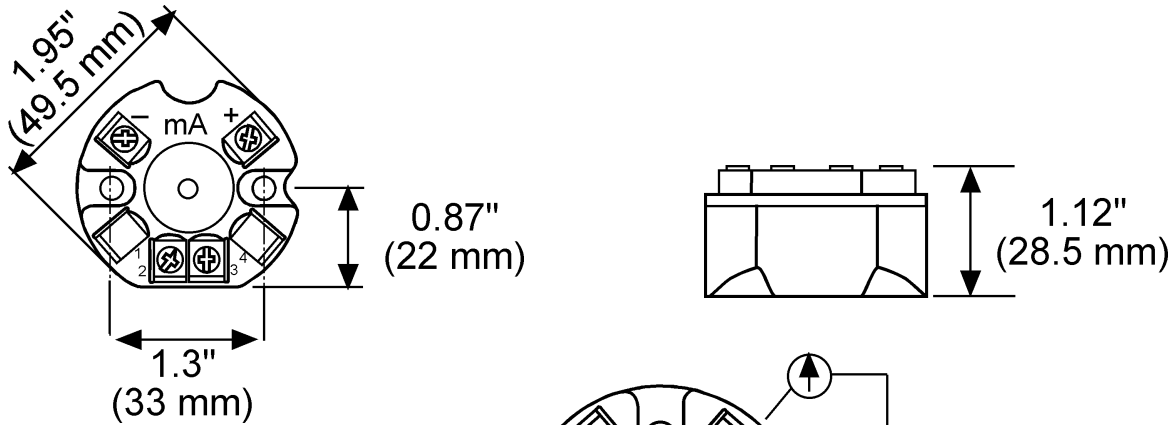
Weight: 2.4oz (0.07kg);

#### Warranty

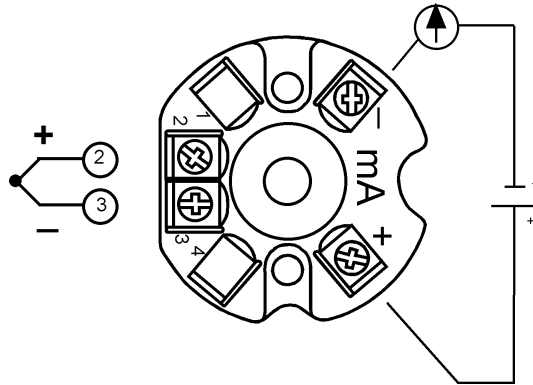
5 years

Dimensions:

T-23.00 DIN Head Mounted Temperature transmitter



T-23 Terminal assignment



T-23 Inputs and Ranges					
Input	Sensor	Range °F	Range °C	Minimum Span	
Thermocouple	J	-148 to 2192	-100 to 1200	90°F	50°C
	K	-292 to 2500	-180 to 1372	90°F	50°C
	N	-292 to 2372	-180 to 1300	180°F	100°C
	T	-328 to 752	-200 to 400	90°F	50°C
	E	-148 to 1832	-100 to 1000	90°F	50°C
	L	-148 to 1652	-100 to 900	90°F	50°C
	U	-328 to 1112	-200 to 600	135°F	75°C
	R	-58 to 3200	-50 to 1760	360°F	200°C
	S	-58 to 3200	-50 to 1760	360°F	200°C
	B	752 to 3308	400 to 1820	360°F	200°C
	W3	32 to 4172	0 to 2300	360°F	200°C
	W5	32 to 4172	0 to 2300	360°F	200°C

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Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice.



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